

water adsorbed to said HC adsorption catalyst is calculated, and said temperature gradient is compared with a preset diagnosis threshold, and if said temperature gradient is smaller than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

5. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 1, wherein a temperature gradient after evaporating of water adsorbed to said HC adsorption catalyst is calculated, and said temperature gradient is compared with a preset diagnosis threshold, and if said temperature gradient is larger than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

6. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 1, wherein a temperature gradient during evaporating of water adsorbed to said HC adsorption catalyst and a temperature gradient after evaporating of water adsorbed to said HC adsorption catalyst are calculated, and a ratio of said two temperature gradients is compared with a preset diagnosis threshold, and if said temperature gradient ratio is larger than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

10. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 7, wherein if said desorbing time period exceeds a preset time, judgment of degradation of said HC adsorption catalyst is prohibited.

11. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 7, wherein if a cumulative value or a maximum value of a flow rate of air flowing into said internal combustion engine during said HC desorbing time period exceeds a preset value, judgment of degradation of said HC adsorption catalyst is prohibited.

12. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 6, wherein said diagnosis threshold is corrected based on a flow rate of air flowing into said internal combustion engine during said HC desorbing time period.

13. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 4, wherein said diagnosis threshold is corrected based on a flow rate of air flowing into said internal combustion engine.

15. (AMENDED) An internal combustion engine diagnosis apparatus according to claim 11, wherein said internal combustion engine comprises an air

03
Cof
flow rate measurement instrument for measuring or estimating a flow rate of air flowing into said internal combustion engine.

(A copy of the marked-up version of amended Claims 3-6, 10-13 and 15 are attached to this Preliminary Amendment).

Please ADD Claims 16-20 as follows:

10083496-022700
20220-964500
16. (NEW) An internal combustion engine diagnosis apparatus according to claim 2, wherein said internal combustion engine comprises a temperature detector for detecting temperature of said HC adsorption catalyst, and degradation of said HC adsorption catalyst is diagnosed based on a detected value of said temperature detector.

17. (NEW) An internal combustion engine diagnosis apparatus according to claim 16, wherein a temperature gradient during evaporating of water adsorbed to said HC adsorption catalyst is calculated, and said temperature gradient is compared with a preset diagnosis threshold, and if said temperature gradient is smaller than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

18. (NEW) An internal combustion engine diagnosis apparatus according to claim 16, wherein a temperature gradient after evaporating of water adsorbed to said HC adsorption catalyst is calculated, and said temperature

gradient is compared with a preset diagnosis threshold, and if said temperature gradient is larger than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

19. (NEW) An internal combustion engine diagnosis apparatus according to claim 16, wherein a temperature gradient during evaporating of water adsorbed to said HC adsorption catalyst and a temperature gradient after evaporating of water adsorbed to said HC adsorption catalyst are calculated, and a ratio of said two temperature gradients is compared with a preset diagnosis threshold, and if said temperature gradient ratio is larger than said diagnosis threshold, it is judged that said HC adsorption catalyst is degraded.

20. (NEW) An internal combustion engine diagnosis apparatus according to claim 7, wherein said diagnosis threshold is corrected based on a flow rate of air flowing into said internal combustion engine during said HC desorbing time period.

REMARKS

Entry of the amendments to the specification, claims and abstract before examination of the application is respectfully requested. These claims have been amended to remove multiple dependencies/These claims patentably define over the art of record.